



MARKED-UP VERSION OF AMENDED SPECIFICATION

Please replace the first full paragraph on page 9, line 6, with the following:

The wall unit 110 further comprises CPE interface circuitry 250 under the control of system control 270. The CPE interface circuitry 250 is connected to the telephonic ports 261-263 by lines 251-253. The CPE interface circuitry 250 provides standard telephone interface functions, including providing D.C. power, detecting on-hook and off-hook conditions, providing ring current, and ring-back and busy tones. The overall operation and control of wall unit 110 is described hereinafter in relation to the flow diagrams illustrated in FIGs. 4A-D.

Please replace the paragraph starting at page 9, line 25, with the following:

Calls from/to the wall units 110 (Fig. 1) are received/initiated by the modem pool 310 under the direction of control 350 via signaling messages over line 354. The resulting digital signal is communicated from the modem pool 310 over line 315 and between statistical multiplexors 320, which then routes voice related signals to call processing unit 340 over line 345 and data calls over line 325 to router 330. Call processing unit 340 manipulates the voice call signals by converting between standard analog telephone signals which are carried across a PSTN network and VOIP encoded signals to/from wall units 110. Router 330 [300] routes incoming and outgoing data packets to the Internet 390 over line 395. Further operation of gateway server 180 is described hereinafter in relation to flow diagrams illustrated in FIGs. 5A-B.

Please replace the second full paragraph on page 11, line 12, with the following:

Otherwise, in step 438, the CPE interface circuitry 250 generates a ring signal on the appropriate port 261-263. If the phone is answered as determined in step 440, then in step 442 a signaling message is sent to the gateway server 180 by system control 270 and the voice session commences. When the call is completed as determined in step 444 either by a telephonic device going on-hook or the receipt of a call termination message from gateway server 180, then the call is terminated in step 446, which is also the case if the phone is not answered as determined in step 440.

Please replace the third full paragraph on page 11, line 20, with the following:

Turning now to FIG. 4C, illustrated are the steps performed by wall unit 110 for a data call originated on data port 264 [464]. Processing begins at step 450, where the wall unit 110 waits for a request for data call as indicated by the looping of step 452. Then, step 454 is performed to determine if a session with the gateway server 180 is already established. If not, step 456 is performed to connect to the gateway server. Next, in step 458 the call is completed and the data traffic is routed within the gateway server 180 through router 330 to the Internet 390. When the data call is done as determined in step 460, the call is terminated in step 462.

Please replace the paragraph starting at page 11, line 29, with the following:

Turning now to FIG 4D, illustrated are the steps performed by wall unit 110 for receipt of a data call to terminate on data port 264 [464]. Processing begins at step 470, where the wall unit 110 waits for a modem connection with the gateway server 180 as indicated by the looping of step 472. After the modem connection is established, step 474 is performed to receive the call setup messages. If data port 264 is not busy and the device attached to port 264 is accepting calls as determined in steps 476 and 478, the call is connected in step 480 which causes the data call to be extracted from the statistical multiplexor 220 and routed to data port 264 [464]. When the call is completed (e.g., no data traffic for a predetermined amount of time) as determined in step 482, the call is terminated in step 484.

Please replace the first full paragraph on page 12, line 9, with the following:

Turning now to FIG. 5A, illustrated are the steps performed by the gateway server 180 in originating a call to the wall unit 110. Processing commences with step 500. In step 502, control 350 of the gateway server determines whether there exists a modem session with the appropriate destination. If not, step 504 is performed to establish such a session. Next, step 506 is performed to send signaling information to wall unit 110. [If] In step 508, if a call is established with the customer premises equipment connected to one of the ports 261-264 [461-464], the call is connected in step 510. When the call is completed as determined in step 512, step 514 is performed to terminate the call.

Please replace the third paragraph on page 12, line 18, with the following:

Turning finally to FIG. 5B, illustrated are the steps performed by the gateway server 180 in receiving a call initiated by the wall unit 110. Processing commences with step 520. In step 522, the gateway server 180 waits for either a modem connection or a new call request over an existing modem connect. Next, step 524 [354] determines whether the call is a voice or data call.

Please replace the fourth paragraph on page 12, line 23, with the following:

For a data call, steps [530]526-536 are performed. First, in step 526 [530], the data call is established by communicating signaling information with the wall unit 110 and by establishing a logical communications channel between the statistical multiplexor 320 and router 330. Then, at step 528 [532], packets comprising the data call are routed between the wall unit 110 and the Internet 390. When the call is done, as determined in step 534, step 536 is performed to terminate the data call and release the resources.



MARKED-UP VERSION OF AMENDED CLAIMS

1. (amended) A system for providing multiline service, the system comprising:
a modem for exchanging communications signals with a communications network
and for exchanging an incoming digital signal and an outgoing digital signal with a
statistical multiplexor;

the statistical multiplexor for exchanging the incoming digital signal and the outgoing
digital signal with the modem, for multiplexing a plurality of outgoing encoded signals from
a plurality of telephonic devices into the outgoing digital signal, and for demultiplexing the
incoming digital signal into a plurality of incoming encoded telephonic call signals; [and]

at least one call processing element coupled to the statistical multiplexor for
converting the plurality of incoming encoded telephonic call signals into a plurality of
incoming phone signals, and for converting a plurality of outgoing phone signals into the
plurality of outgoing encoded telephonic signals[.]; and

one or more bypassing elements positioned between the plurality of telephonic
devices and the statistical multiplexor and operative to connect the plurality of telephonic
devices either to the at least one call processing element or to the communications
network.

7. (amended) A system for simultaneously providing multiline phone and data
service, the system comprising:

a modem for exchanging communications signals with a communications network
and for exchanging an incoming digital signal and an outgoing digital signal with a
statistical multiplexor;

the statistical multiplexor for exchanging the incoming digital signal and the outgoing
digital signal with the modem, and for multiplexing an outgoing encoded telephonic call
signal and an outgoing data signal into the outgoing digital signal, and for demultiplexing
the incoming digital signal into an incoming encoded telephonic call signal and an incoming
data signal; [and]

a call processing element coupled to the statistical multiplexor for converting the
incoming encoded telephonic call signal into an incoming phone signal, and for converting

an outgoing phone signal into the outgoing encoded telephonic signal[.]; and one or more bypassing elements positioned between the plurality of telephonic devices and the statistical multiplexor and operative to connect the plurality of telephonic devices either to the call processing element or to the communications network.

12. (amended) A system for providing multiline calls, the system comprising:
a modem for exchanging customer signals over a telephone line having encoded therein a set of multiline calls, and for communicating incoming and outgoing digital signals with a statistical multiplexor;

the statistical multiplexor for exchanging the digital signals with the modem, and for multiplexing at least one outgoing encoded telephonic call signal from a telephone network into the outgoing digital signal, and for demultiplexing the incoming digital signal into at least one incoming encoded telephonic call signal;

at least one call processor coupled to the statistical multiplexor for converting the at least one incoming and outgoing encoded telephonic call signals into at least one telephone network call, and for providing the at least one telephone network call to a gateway switch for communicating over the telephone network; [and]

a control coupled to the at least one call processor for controlling the call processor and for exchanging signaling information with the gateway switch[.]; and

one or more bypassing elements positioned between the plurality of telephonic devices and the statistical multiplexor and operative to connect the plurality of telephonic devices either to the at least one call processing element or to the communications network.